Chapter 4

Governance, Teams, People, and Human Resources

Project managers commonly say that "... people are their most valuable resource" but also that "... managing people can be difficult and frustrating". Understanding the motivation of individuals, the dynamics in teams, and how to structure them is consequently an important factor in project success. There have been many studies in **organisational psychology** in how people work, and how well they work. The studies include motivation, influence and power and effectiveness at work.

4.1 Understanding People in Project Teams

What motivates people?

Two popular organisational theories of motivation are those of Maslow and Hertzberg. Maslow developed the hierarchy of needs shown in Figure 4.1 — a theory that people's behaviour are guided by a hierarchy of needs.

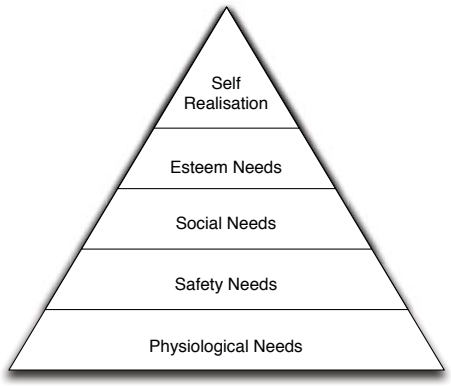

Figure 4.1: Maslow's hierarchy—A satisfied need is no longer a motivation.

The general idea is that at the base of the triangle we have physiological needs that guide our behaviour. Once these are satisfied then safety needs guide our behaviour. Once safety needs are satisfied then social needs come to the forefront and so on up the hierarchy. Maslow suggests that the needs each level of the hierarchy must be satisfied as a prerequisite to attaining the needs at the next level. For example, people in emergency situations such as a flood or

hurricane do not think about personal growth. In such situations people are typically are more concerned with survival (safety needs).

According to the theory, at the top of the hierarchy people are problem focused, appreciate life, and are concerned about personal growth. It is probably safe to say that in information technology projects most people's physiological and safety needs are met. To motivate a project team means that project managers must understand each individual's *social* needs, *esteem* need, and *self actualisation* needs. For example, project members in a new city or office may be motivated through gatherings and social activities to have their social needs met, while people who are already in the environment and have their social needs met may see these additional gatherings as a hindrance.

If we accept Maslow's theory then project managers should know something about individual's professional and personal lives in order to understand how better to motivate them.

An alternative theory is that of Hertzberg, who carefully distinguished motivational factors from what he called *hygiene* factors. Larger salaries, job security, and more attractive work environments were commonly thought to be key factors in motivating employees. Hertzberg from his study of some 1,685 employees found that this was not the case. These factors, called the *hygiene factors*, would cause dissatisfaction if not present, but did not motivate people to do do better at their work. Motivating factors, according to Hertzberg, were achievement, the work itself, recognition, responsibility and personal growth. Project managers may not be able to control all of these factors in a project but organisations should pay attention to them. Hertzberg's opinion is that project managers should be aware that these two different (but overlapping) sets of criteria need to be controlled separately.

Influence

The problem of influence and power is that on larger projects many of the people working on the project do not report directly to the project management and project management does not always have direct control over the staff who do not report directly. For example, if given work assignments are unpalatable, it is still the case that people will transfer or may even change jobs. The research by Thamhain and Wilemon identified nine *influences bases* available to project management to influence the project:

1. **Authority** — the right to issue orders and instructions by virtue of position in the organisational hierarchy.
2. **Assignment** — the project management's perceived ability to influence workers' later work assignments.
3. **Budget** — the project management's perceived ability to authorise other's use of discretionary funds.
4. **Promotion** — the ability to improve a worker's position.
5. **Money** — the ability to increase a worker's pay and benefits.
6. **Penalty** — the project management's perceived ability to hand out penalties and punishments.
7. **Work challenges** — the ability to assign work that uses a worker's enjoyment of certain tasks and thereby also tapping into a motivational factor.
8. **Expertise** — the project management's perceived special knowledge that others deem important.
9. **Friendship** — the ability of people in project management to make friendly personal relations with others.

Authority is usually granted to project management by the organisation. Assignment, budget, promotion, money and penalty bases are not automatically available to project management and depend heavily on the project management's position. Perceptions are important in making these influence bases work. For example, any project manager can assign challenging work but must earn the ability to influence by expertise and friendship.

Thamhain and Wilemon found that projects in which project management relies too heavily on authority, money and penalties to influence people are more likely to fail.

Power

Power and influence are closely related. Power is the ability to influence people's behaviour to get them to do what they would not otherwise do. Power is much stronger than influence because it is often used to get people to change their behaviour. The main types of power are the following.

1. **Coercive power** — uses threats, punishments, penalties and other negative approaches to get people to do things they do not want to do. This is similar to the influence category called *penalty*. The danger however, is that the overuse of coercive power correlates quite strongly to failed projects.

2. **Legitimate power** — uses position and authority to get people to do things. This is similar to the influence category called *authority*. Most often this type of power is exercised by project management to make key decisions without consulting the rest of the project team. Again, the danger is that the overuse of authority correlates quite strongly to failed projects.

3. **Expert power** — uses one owns personal knowledge and expertise to change people's behaviour. Generally, if project management is perceived to be expert in some area then the project team is more likely to follow their lead.

4. **Reward power** — uses incentives to induce people to do things. Rewards can include money, status, recognition, promotions, special work assignments, or other means of reward when individuals exhibit the desired behaviour. Some motivation theorists suggest that only certain types of rewards truly influence people to change their behaviour or to work hard; for example, work challenges, achievement and recognition.

5. **Referent power** — is based on individual's personal charisma. People hold someone in very high regard and will do what they say and follow their lead based on their high regard for the person. This is a rare form of power as very few people have the type of charisma that underlies referent power.

Teams often have leaders, and leaders can have different styles of leadership. Those styles can be understood in relation to:

1. the leader's concern for the task — that is, the emphasis that the leader places upon getting the job done and not bothering too much about human relationships; and

2. the leader's concern for people — that is, relating to personal needs, without worrying too much about the mechanics of administrative procedures.

These styles are obviously similar to task and maintenance role-playing. Just as surely as effective teams strike a balance between human and non-human factors, so too does effective leadership. This can be done in one or two ways:

1. The leader can herself/himself play some or all of the task and maintenance roles (with the exception of the *follower*, but see shared leadership).

2. The leader does his or her best to control the intensity and mix of task and maintenance role-playing among team members.

Effective leaders do not indulge in destructive role-playing, and are ready to control and suppress destructive role-playing by team members. What power does a leader have in a team? If you are in a team, how can someone exercise power over you? How can you exercise power over someone else? More fundamentally, how do you define power? A useful way of looking at power is to look at fives bases of power, namely legitimate power, reward power, coercive power, reward power, referent power and expert power.

Improving Effectiveness

The work of Maslow, Hertzberg and others have been expanded upon by Stephen Covey in his work on *The Seven Habits of Highly Effective People*. The first three habits are for individuals to attain *independence*, while the last four aim to make *interdependence* more effective.

1. **Be proactive** — Covey, like Maslow, Hertzberg and others assumed that people have the ability to choose their responses in different situations. Project managers need to be proactive and anticipate problems and changes in projects but can also encourage team members to be proactive in working on their project activities.

2. **Begin with the end in mind** — Covey suggests that people focus on what they want to accomplish and on their values. The idea is to visualise the outcome and then to work out how to get there.

3. **Put first things first** — People need to spend more time doing what is important but not urgent. What we normally do is the urgent activities but not the important ones. Covey suggests that important but not urgent activities are things like exercise, planning and reading. Project managers need to spend more time in important but not urgent activities like building relationships, mentoring, developing the project plan, thinking ahead - and not just on putting out fires.

4. **Think win/win** — The idea is to make all parties winners and to work together to develop solutions that will make this possible for all parties. Project managers should often strive to make win/win decisions but sometimes, especially in competitive situations, a win/lose approach must be used instead.

5. **Seek first to understand then to be understood** — *Empathetic listening* is listening for the sole purpose of understanding. It is claimed that this is more powerful than active listening because all that you want to do is to understand the other person. To really understand the other person yo need to focus on others first. After you have truly understand the other person then aim to get your message across.

6. **Synergise** — Now this sounds quite airy-fairy but what it means in practice is collaborating with others to achieve much more than a collection of individual efforts. Sometimes the slogan "*a champion team is better than a team of champions*" is used to indicate the same idea. A key point is to value the differences in others.

7. **Sharpen the axe** — The idea here is to take time to renew yourself physically, mentally and socially. The practice of self-renewal helps people to avoid burnout and this is essential to good project management. Teams that have time to retrain, re-energise and occasionally even relax tend to be more resilient and avoid burnout. Often we are too busy "*chopping wood*" — that is dealing with urgent things — to "*sharpen the axe*".

It has also been suggested that habit number 5 distinguishes good project managers from average and bad project managers. Good project managers focus on understanding others rather than simply pushing their own agenda. Empathetic listening also helps people to understand each others motives, ideals and aspirations and so motivate them and bond teams together closer.

Empathetic listening however, first requires that people talk to you and so you must work on establishing a *rapport* with them. Rapport is a relationship of accord, or affinity. At the very least you will need to earn the respect of the people that work for you before you can start empathetic listening.

4.2 Building Teams

Why do people join groups or teams?

According to communication theorists, there are five major reasons why people join, participate in or leave groups.

1. **Security** — Being a member of a group may make us feel more secure and help satisfy our deep-seated need for security.

2. **Task complexity** — We join groups not just for security but because we can achieve a lot more by working together.

3. **Social interaction** — Much of the time, being part of a team is enjoyable. Work not only fulfils our economic purposes but also helps to meet our social needs as well. People may not be passionately enthusiastic about the others they work with, but their work peers, and the physical environment where the work takes place, provide a structure for interaction among people, and the people and place give a sense of meaning: many people discover this truth to their cost, upon retirement or upon suddenly becoming unemployed. When the structure is taken away then people's health often suffers as a result these kinds of stressful life changes.

4. **Physical proximity** — Physical proximity to others is the fourth reason many people like to participate in teams. It is likely that a group of students sitting together in a tutorial would be more likely to form into a group than a number of students scattered throughout the room. In the workplace, people who work in the same area are more likely to develop a group identity than those who are not physically located close together. For all practical purposes, members of one group are sometimes members because they happened to be in the same place at the same time.

5. **Exchange** — The exchange theory of group membership could best be summed up in the slogan, "*What's in it for me?*". Exchange theorists argue that we all weigh up the "costs and benefits" of being in a group, and as long as what we get from a group outweighs the cost of being a member of that group, we will stay in the group.

Norms and roles

A useful way of defining a team is as a group of people with shared norms and interlocking roles. Another way of looking at a team is to think of a norm as a cultural rule that people either observe or break, and a role as a set of expected behaviours within a particular culture.

As you are probably aware, rules can either be official or unofficial. To illustrate this concept, consider a work group at a factory. The group is influenced by, or some would even say controlled by, a set of official rules. The purpose of these rules is to help regulate the conduct of the workers to enable them to perform their roles in the factory as efficiently as possible. The rules would be written down and perhaps even posted on a noticeboard. Beyond what is written down, the work group would have a set of unofficial rules, called *norms*. These norms would be the result of a shared history and experiences at the factory and, much like the official rules, would also help to regulate group behaviour. Table 4.1 provides a better idea of what we mean by formal and informal group norms.

FORMAL NORMS	INFORMAL NORMS
Workers show up at the factory on time	Workers often refer to each other by nicknames
Workers must observe safety regulations	Some workers engage in practical jokes and horseplay
Workers in this group have lunch in the cafeteria from 11:45 to 12:30	Workers in this group sit at the one table and drink three cups of coffee
Workers in this group work at peak capacity to meet productivity agreement requirements	Workers in this group work at about 60 per cent capacity: we get more overtime that way, and if we work at peak capacity, then one of us might be seen to be unnecessary and get the sack

Table 4.1: Examples of formal and informal norms.

Breaking a formal norm has obvious consequences: we get criticised, we get suspended or fired or expelled, we get arrested and so on. The the situation is not so clear with informal norms, but there are still usually consequences. These might be:

- **non-verbal**, such as a quizzical look, or sneer, or a disapproving expression or we might get frozen out by the other group members, who refuse to talk to us;
- **verbal**, such as explicit criticism; or
- **physical**, such as shoving, pushing and hitting.

Of course the team is there to complete a project but in doing so the members of the team take on different roles. We must consider the roles that people play in teams in order to understand team dynamics. Roles are typically separated into three types:

1. **task roles** — people that play these roles help to get the productive work done;
2. **maintenance roles** — people that play these roles help the team to work together effectively; and
3. **destructive roles** — people that play these roles actively make it harder to do the work on the team.

Table 4.2 outlines these different types of roles, and the specific roles in these types.

These roles do not have to be played by different people. One person can play more than one role, including more than one role from either the task or maintenance list. An effective group is one that has a good mix of role-playing, with both task and maintenance roles in balance.

A group that mainly concentrates on task roles may be lacking in interpersonal skills, and may experience conflict without knowing how to handle that conflict. A group that is weak on task roles but is strong on maintenance roles may be a happy one, but perhaps not an effective one.

Effective teams then have a good balance of task and maintenance role playing, and minimal or non-existent destructive role playing.

Phases of group development

Groups or teams, then, are all about roles and norms. But do all teams just start off being effective when the right mix of roles is present? The answer is, of course, no because most teams go through five stages of development before becoming effective:

1. forming;
2. storming;
3. norming;
4. performing; and
5. terminating.

When groups get together for the first time, they tend to be in the forming stage. In this stage, members are attempting to identify just what tasks they should be concentrating on, but also on getting to know just who the other members are. How do we break the ice? What do we have in common? Who do we like? Who do we dislike? How do we overcome the awkwardness of any new relationship, and create feelings of empathy and problem-solving? Who wants to dominate or lead, and who wants to submit or follow?

In the second stage, we have some emotional heat. This is the storming phase. Here, maintenance or socio-emotional responses to task demands come to the fore, and conflicts within the group might emerge for a number of reasons: misunderstanding of role behaviour and norms, conflicting goals, poor feedback and listening, poor problem solving. There may be a power struggle for leadership as well.

In the third phase, norming, things begin to settle down. Here, cohesion begins to develop. Opinions are now stated more readily and are received in a less defensive manner. A leader begins to emerge, and formal and informal norms begin to emerge also.

TASK ROLES	
Initiator	An initiator is a person who offers new ideas or suggests solutions to problems. An initiator is a brainstormer or lateral thinker.
Information seeker	An information seeker wants to find out relevant facts or needs to have information.
Information giver	An information giver describes her or his own experience, or offers facts and information clarified.
Coordinator	A coordinator coordinates activities, or can synthesise and combine the ideas and suggestions that come from other members of the group.
Evaluator	An evaluator can assess the quality of suggestions, solutions or norms.
MAINTENANCE ROLES	
Encourager	An encourager will do just that — encourage others by praising and accepting their ideas, and by encouraging cohesiveness and warmth.
Harmoniser	A harmoniser can help reduce tension by seeking consensus, and perhaps by using humour to neutralise anger and intensity.
Standard setter	A standard setter helps raise questions about group goals, and actively participates in setting goals and standards; the standard setter can almost be the group conscience.
Follower	A follower is a person who is content with agreeing with and pursuing the activities of other group members.
Group observer	A group observer monitors the operations of the group, giving feedback to other members of the group.
DESTRUCTIVE ROLES	
Blocker	A blocker is an eternally negative person, thinking up a million reasons why something cannot be done, instead of trying to brainstorm and come up with creative and positive solutions to problems. A blocker may also try to lead the group back to issues that have already been rejected.
Recognition seeker	A recognition seeker is a person who apparently needs to continuously call attention to herself or himself: this is done by boasting, bragging, telling anecdotes or stories that are irrelevant to what the group is talking about.
Dominator	A dominator is an aggressive person who tries to manipulate the group and set the agenda, no matter what others might think or say. Dominators tend to interrupt and use aggressive tactics like abuse and sarcasm.
Avoider	The avoider is a person who really does not want to be a member of the group, and remains as passive and silent as possible. The avoider may be un-assertive and stressed, or simply bored and uninterested in what is going on. Even when others in the group try to get the avoider involved, he or she will resist, until the others give up in despair or disgust.
Free Rider	The free rider is a person who is lazy, but is also manipulative. Such a person is happy to let others do all the work, but then wants to take credit for their (non-existent) part in the collective effort.
Lone Wolf	The lone wolf is someone who does not particularly like being on teams, but stays in for a variety of reasons. The lone wolf will often just do her or his thing, which sometimes fits in with what others are doing, and sometimes does not. The lone wolf is sometimes quite talented, but will become upset if people do not like his/her efforts, and may then leave the team to work alone.

Table 4.2: The roles that people play in teams.

In the fourth stage, performing, the group begins to function well. Members perform tasks together, and everyone is clear about what role they are playing. Synergy and teamwork are evident.

In a final stage, the group terminates activities. This may be a short-term, routine process in which the group still stays together, but simply moves on to another major task or project. Termination might mean disbanding the group with all members going their own way. This may be a routine operation, with members only expecting to be together for the duration of a particular project. In this situation, members may well say goodbye but still experience positive feelings towards other group members. Members may in fact keep in touch long after the formal group has disbanded.

The group may however break up in disarray, as a result of unbearable friction and conflict. In this situation, this is in fact a return to the storming phase, only at a greater level of intensity.

Do all groups go through these phases? No, they dont, and even some that do may jump back and forth from phase to phase. Nevertheless, the phase model of group development may help us to understand just what is going on in a group at any given time.

4.3 Team Structure and Organisation

Teams can be organised in a variety of ways. The actual team organisation often depends on the organisational norms (the organisational culture), the mix of people in the team, the type of problem to be solved, the rigidity of the delivery date, and the process being used to solve that problem. A number of standardised team structures are given below but all of these have their strengths and their weaknesses.

Controlled Centralised (CC) is a team structure where there is a clearly defined leadership at all times and the team is organised in a hierarchy of sub-teams (an example is given in Figure 4.2). Each sub-team is typically lead by a team leader that reports to the central project management. Decisions are made by the project management, typically in consultation with the team leaders, and communicated to team members via the team leaders.

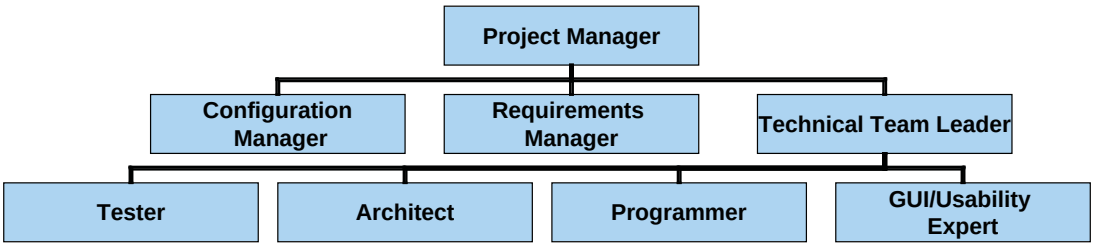

Figure 4.2: Centralised control team structure exhibits top-level problem solving.

Problem solving is usually top-down and the major communication channels are vertical running from the central project management to sub-teams. In smaller centrally controlled teams there can be more horizontal communication, but as the team gets larger this tends to drop away.

Centralised control structures are easier to manage because of the clear hierarchy and separation between sub-teams and a centralised control structure can support very large teams. The often rigid control of the sub-teams tends to shorten the effective life-time of centralised controlled teams and raise communication overheads because all the matters of relevance must be communicated through the hierarchy.

A controlled centralised hierarchy however, is good for short tough deadlines as progress and team risks can be monitored and acted upon centrally. Further this model tends to produce more reliable and robust products because of the centralised nature of quality control.

Controlled Decentralised (CD) is a team structure in which there is again a defined leader at all times (see Figure 4.3). Typically, the team leader coordinates specific tasks and secondary task coordinators take over control of the sub-tasks and reports to the team management. A decentralised structure places more control in the hands

of sub-task leaders and encourages more horizontal communication among subgroups and individuals. Vertical communication occurs between the task coordinators (with each other) and with the team leader. The controlled

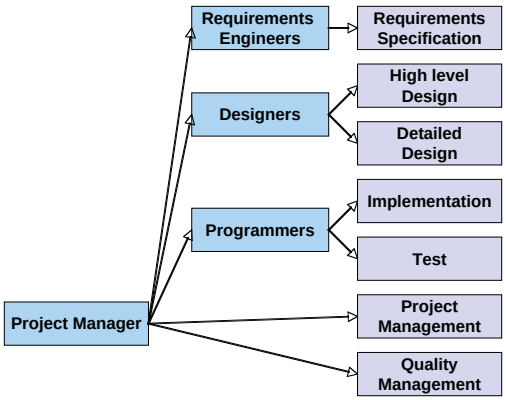

Figure 4.3: Controlled decentralised team structure where the problem solving is distributed among the different teams.

decentralised model shares many of the attributes of a controlled centralised model but gives more autonomy to sub-teams. Also with a controlled decentralised model there is a need for non-technical management as well as the more obvious technical management.

Democratic Decentralised (DD) (innovative anarchy) is a structure in which there is typically no permanent leader. Task coordinators are appointed for short durations in the early planning phases and then replaced by others as the project moves into different phases (see Figure 4.4). A democratic decentralised structure requires a great deal of horizontal communication among the team members in order to keep the project coordinated. In

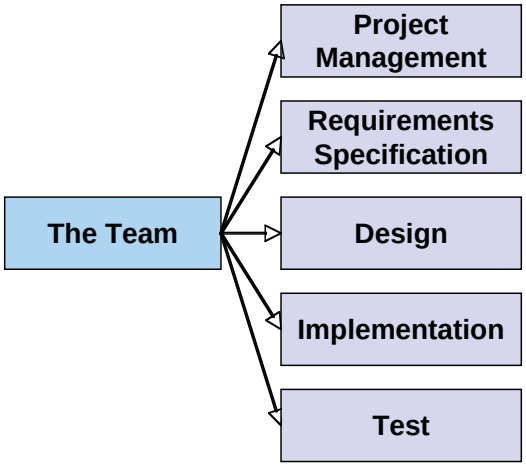

Figure 4.4: Democratic decentralised team structure where again the problem solving is distributed among the different teams.

contrast to the two centralised models the democratic decentralised model is harder to manage because of the coordination overhead and it is not suited to delivering products in a short time. On the other decentralised teams are able to sustain longer lifetimes because of the more democratic nature of the decision making process.

SWAT (CD) is a team structure that uses a team of motivated well trained experts who can work together well and

get builds out quickly (See Figure 4.5). A SWAT team is ideal for a short prototype phase or when the project requires a difficult problem to solve.

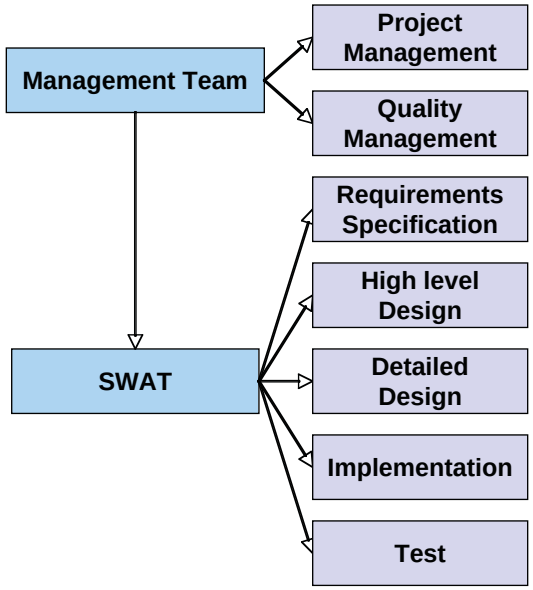

Figure 4.5: A SWAT team structure, consisting of a team of specialists that work well together.

Chief Programmer Team (CC) is built around a highly skilled and experienced chief programmer or chief engineer who coordinates the technical activities (See Figure 4.6). Other team members provide technical as well as non-technical support for the chief programmer.

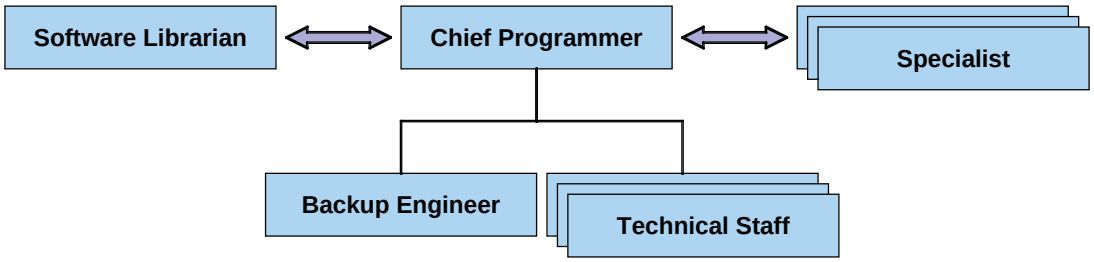

Figure 4.6: A specialist team structure built around a chief programmer or chief engineer.

XP (eXtreme Programming) Team is a team structure in which there may be a permanent leader, but need not be. Programmers typically working in pairs with one programmer writing the test cases that will ultimately drive the development of the system and the other writing code to pass the tests (see Figure 4.7). The team takes joint responsibility for the programs that are developed and teams rely on communication among the team members to coordinate many of the tasks. An XP team is *feature driven*. That is, rather than separate teams based on requirements, design, implementation, etc., the teams are each given a feature to implement. XP teams typically work on incremental projects, with each increment contributing a new feature.

Scrum Team is a controlled structure, but with a democratic decentralised sub-team. The *ScrumMaster* is the leader of the team, however, unlike a manager, a ScrumMaster does not control the team on a day-to-day basis, and

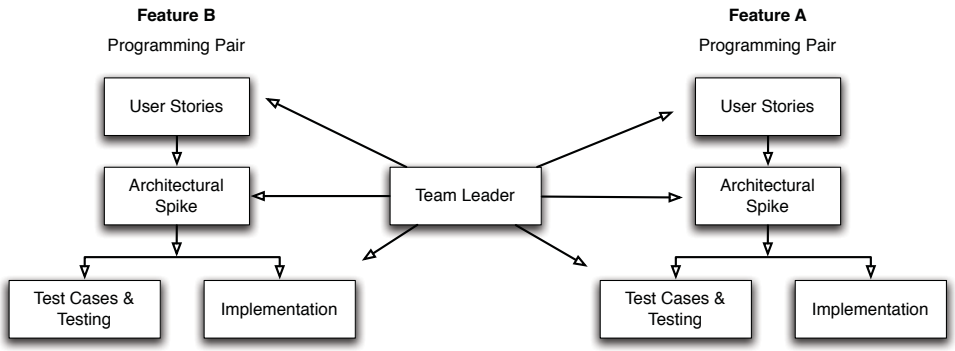

Figure 4.7: A typical XP team structure in which the phases of the life-cycle are present in an informal form but the task is distributed to the programming teams.

does not assign tasks to team members. A ScrumMaster's major responsibilities are to put teams together and provide them with the resources necessary to complete sprints. In a scrum team, the *team members* are not assigned official roles. Instead, depending on the tasks, the team itself decides who will complete tasks, based on the strength of the individual members. Sometimes, ScrumMaster are also team members. The *Product Owner* is an important part of a scrum team. They are responsible for assigning priorities to the requirements in a product backlog, and for deciding which requirements are to be built. Although they are not part of the technical team, they are considered important to the success of projects.

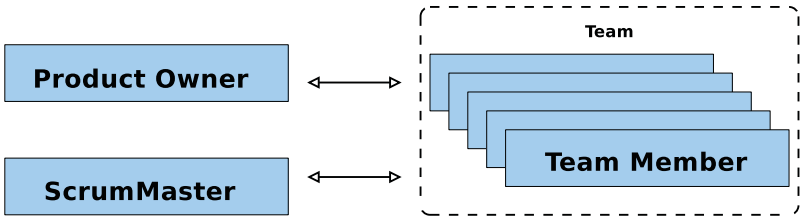

Figure 4.8: A Scrum team structure.

For the major three team structures, — controlled centralised, controlled decentralised, and democratic decentralised — we may sum up some of the strengths and weaknesses in Table 4.3.

	Complexity	**Size**	**Team lifetime**	**Modularity**	**Quality & Reliability**	**Deadline**	**Communication**
DD	High	Small	Long	Low	Low*	Long	Low
CD	Low	Large	Short	High	High	Short	High
CC	Low	Large	Short	High	High	Short	High

Table 4.3: Factors affecting team organisation: **DD** = Democratic Decentralised, **CD** = Controlled Decentralised and **CC** = Controlled Centralised.